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Static Electricity Precautions

1. Do not take this motherboard and components out of their original static-proof package until you are ready to install them.
2. While installing, please wear a grounded wrist strap if possible. If you do not have a wrist strap, discharge static electricity by touching the bare metal of the system chassis.
3. Carefully hold this motherboard by its edges. Do not touch those components unless it is absolutely necessary. Put this motherboard on the top of static-protection package with component side facing up while installing.

Pre-Installation Inspection

1. Inspect this motherboard whether there are any damages to components and connectors on the board.
2. If you suspect this motherboard has been damaged, do not connect power to the system. Contact your motherboard vendor about those damages.

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PCxx00 Series, V1.0
May 2006

Table of Contents

Trademark ..... **i**

Chapter 1: Introduction **1**
Key Features *1*
Package Contents *4*

Chapter 2: Motherboard Installation **5**
Motherboard Components *6*
I/O Ports *7*
Installing Memory Modules *8*
Jumper Settings *9*
Install the Motherboard *10*
Connecting Optional Devices *11*
Install Other Devices *13*
Expansion Slots *15*

Chapter 3: BIOS Setup Utility **17**
Introduction *17*
Running the Setup Utility *17*
Standard CMOS Setup Page *18*
Advanced BIOS Features Page *19*
Advanced Chipset Features Page *22*
Integrated Peripherals *26*
Power Management Setup Page *30*
PCI/Plug and Play Setup Page *34*
PC Health Satus Page *35*
Frequency/Voltage Control Page *36*
Load Fail-Safe Defaults *37*
Load Optimized Defaults *37*
Set Supervisor Password *37*
Set User Password *37*
Save & Exit Setup *38*
Exit Without Saving *38*

Chapter 4: Software & Applications **39**
Introduction *39*
Installing Support Software *39*
Bundled Software Installation *41*

Notice:

1. Owing to Microsoft certifying schedule is various to every supplier, we might have some drivers not certified yet by Microsoft. Therefore, it might happen under Windows XP that a dialogue box (shown as below) pops out warning you this software has not passed Windows Logo testing to verify its compatibility with Windows XP. Please rest assured that our RD department has already tested and verified these drivers. Just click the **Continue Anyway** button and go ahead the installation.

2. USB 2.0 Driver Limitations:

2-1. The USB 2.0 driver only supports Windows XP and Windows 2000.

2-2. If you connect a USB 2.0 hub to the root hub, plugging USB devices into this hub, the system might not successfully execute certain USB devices connection because it could not recognize these devices.

Chapter 1 Introduction

This motherboard has onboard **PCxx00** processor with front-side bus speed **400** MHz.

This motherboard integrates the **VIA CN700** Northbridge and **VT8237R Plus** Southbridge that supports the **Serial ATA** interface for high-performance and mainstream desktop PCs, and the built-in **USB 2.0** providing higher bandwidth. It implements **Universal Serial Bus Specification Revision 2.0.**

It supports 6-channel **AC97 Audio Codec** and provides one **IDE Ultra DMA 133**/100/66 channel. It has two 32-bit **PCI** slots, one **CNR** (Communications and Networking Riser) slot (Optional), and supports the onboard **10Base-T/100Base-TX Network** interface (Optional). In addition, this motherboard has a full set of I/O ports including two PS/2 ports for mouse and keyboard, one serial port, one parallel port, one LAN port (optional), four back-panel **USB 2.0** ports, and three audio jacks for microphone, line-in and line-out. Onboard USB header(s) can provide extra ports by connecting the Extended USB Module to the motherboard.

This motherboard is an **Micro ATX size** motherboard and has power connectors for an ATX power supply.

Key Features

The key features of this motherboard include:

PCxx00 Processor Support

- Supports **onboard PCxx00** processor

Chipset

There are **VIA CN700 Northbridge** and **VT8237R Plus Southbridge** in this chipset in accordance with an innovative and scalable architecture with proven reliability and performance.

- Defines Highly Integrated Solutions for Value Embedded PC Designs -- High-performance UMA Northbridge that supports integrated PCxx00 Northbridge with 533 MHz FSB and UniChrome Pro 3D/2D Graphics & Video Controllers in a single chip
- High Bandwidth 533 MB/sec 8-bit V-Link Host Controller -- Supports 66 MHz, 8X/4X transfer modes, V-Link interface with 533 MB/sec total bandwidth
- Advanced System Power Management Support -- ACPI 2.0 and PCI Bus Power Management 1.1 compliant

- PCI to system memory data streaming up to 132 Mbyte/sec (data sent to north bridge via high speed Ultra V-Link interface)
- PCI-2.2 compliant, 32-bit 3.3V PCI interface with 5V tolerant inputs
- Support six PCI slots of arbitration and decoding for all integrated functions and LPC bus.
- Dual Channel Serial ATA/RAID Controller—Complies with Serial ATA Specification Revision 1.0

Memory Support

- Two 240-pin DIMM sockets for DDR2 SDRAM single channel memory modules
- Supports **DDR2 533**/400 memory bus
- Maximum installed memory is 2 GB

Expansion Slots

- One CNR slot (Optional)
- Two 32-bit PCI slots

Onboard IDE channels

- Two IDE Connectors
- Supports PIO (Programmable Input/Output) and DMA (Direct Memory Access) modes
- Supports IDE Ultra DMA bus mastering with transfer rates of **133**/100/66 MB/sec

Serial ATA (Optional)

- Two Serial ATA Connectors
- Transfer rate exceeding best ATA (~1.5 Gb/s) with scalability to higher rates
- Low pin count for both host and devices

AC97 Codec

- Compliant with AC97 2.3 specification
- 16-bit Stereo full-duplex CODEC with independent and variable sampling rate
- Support for 3.3v digital, 5v analog power supply and low power consumption management
- Three analog line-level stereo inputs with 5-bit volume control: LINE_IN, CD, AUX
- Front-Out, Surround-Out, MIC-In and LINE-In Jack Sensing
- Two analog line-level mono input
- Standard 48-Pin LQFP

Onboard I/O Ports

- Two PS/2 ports for mouse and keyboard
- One serial port
- One parallel port
- One VGA port
- Four back-panel USB2.0 ports
- One LAN port (Optional)
- Audio jacks for microphone, line-in and line-out

Fast Ethernet LAN (Optional)

- Built-in **100Base-TX/10Base-T Physical Layer solution**
- Dual Speed -- 100/10 Mbps
- MII Interface to Ethernet Controller and Configuration & Status
- Auto Negotiation: 10/100, Full/Half Duplex
- Meet All applicable IEEE 802.3/802.3u, 10Base-T and 100 Base-TX Standards

USB 2.0

- Compliant with Universal Serial Bus Specification Revision 2.0
- Compliant with Intel Enhanced Host Controller Interface Specification Revision 1.0
- Compliant with Universal Host Controller Interface Specification Revision 1.1
- Support PCI-Bus Power Management Interface Specification release 1.1
- Legacy support for all downstream facing ports

BIOS Firmware

This motherboard uses Award BIOS that enables users to configure many system features including the following:

- Power management
- Wake-up alarms
- CPU parameters and memory timing
- CPU and memory timing

The firmware can also be used to set parameters for different processor clock speeds.

Dimensions

- Micro ATX form factor of 228 x 190 mm

Note: Hardware specifications and software items are subject to change without notification.

Package Contents

Your motherboard package ships with the following items:

- The motherboard
- Two IDE drive ribbon cable
- The Software support CD
- The I/O Shield

Chapter 2 Motherboard Installation

To install this motherboard in a system, please follow these instructions in this chapter:

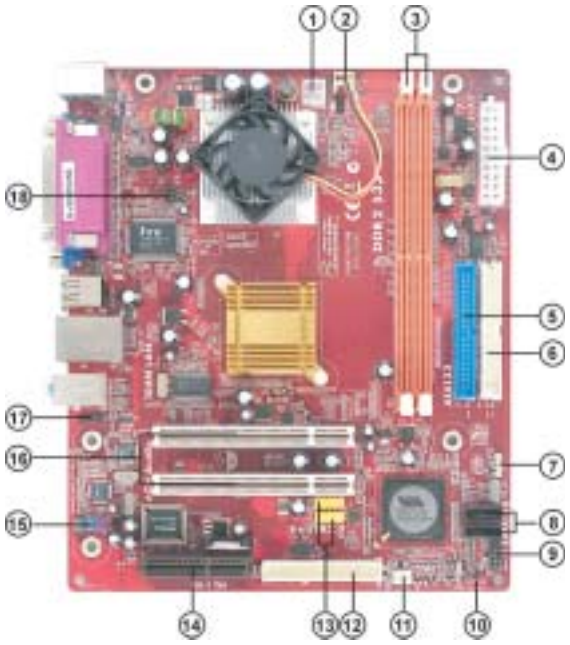
- Identify the motherboard components
- Install one or more system memory modules
- Make sure all jumpers and switches are set correctly
- Install this motherboard in a system chassis (case)
- Connect any extension brackets or cables to headers/connectors on the motherboard
- Install peripheral devices and make the appropriate connections to headers/connectors on the motherboard

Note:

1 Before installing this motherboard, make sure jumper CLR_CMOS1 is under Normal setting. See this chapter for information about locating CLR_CMOS1 and the setting options.

2 Never connect power to the system during installation; otherwise, it may damage the motherboard.

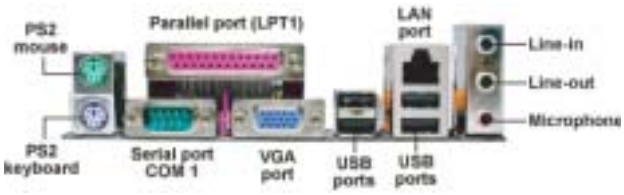
Motherboard Components



ITEM	LABEL	COMPONENTS
1	PWR2	Standard 4-Pin ATX Power connector
2	CPU_FAN1	CPU Fan connector (3PIN)
3	DDRII1~2	240-pin DDR2 SDRAM sockets
4	PWR1	Standard 20-Pin ATX Power connector
5	IDE1	Primary IDE connector
6	IDE2	Secondary IDE connector
7	SPK1	Speaker header
8	SATA1/2	Serial ATA connectors (Optional)
9	PANEL1	Front Panel Switch/LED header
10	CLR_CMOS1	Clear CMOS jumper
11	SYS_FAN1	System Fan connector
12	FDD1	Floppy Disk Drive connector (Optional)
13	F_USB1/2	Front Panel USB headers
14	CNR1	CNR slot (Optional)
15	F_AUDIO1	Front Panel Audio header
16	PCI1-2	32-bit PCI slots
17	CD_IN1	Analog Audio Input header
18	IR1	Infrared header

I/O Ports

The illustration below shows a side view of the built-in I/O ports on the motherboard.



PS/2 Mouse	Use the upper PS/2 port to connect a PS/2 pointing device.
PS/2 Keyboard	Use the lower PS/2 port to connect a PS/2 keyboard.
Parallel Port (LPT1)	Use the Parallel port to connect printers or other parallel communications devices.
Serial Port (COM1)	Use the COM port to connect serial devices such as mice or fax/modems. COM1 is identified by the system as COM1.
VGA Port	Use the VGA port to connect VGA devices.
LAN Port (optional)	Connect an RJ-45 jack to the LAN port to connect your computer to the Network.
USB Ports	Use the USB ports to connect USB devices.
Audio Ports	Use these three audio jacks to connect audio devices. The first jack is for stereo Line-In signal, the second jack for stereo Line-Out signal, and the third jack for Microphone.

Installing Memory Modules

This motherboard accommodates two 240-pin DIMM sockets (Dual Inline Memory Module) for unbuffered **DDR2** 533/400 memory modules (Double Data Rate SDRAM), and maximum 2 GB installed memory.

Over its predecessor, DDR-SDRAM, DDR2-SDRAM offers greater bandwidth and density in a smaller package along with a reduction in power consumption. In addition, DDR2-SDRAM offers new features and functions that enable a higher clock rate and data rate operations of 400 MHz, 533 MHz, 667 MHz, and above. DDR2 transfers 64 bits of data twice every clock cycle.

Memory Module Installation Procedure

These modules can be installed with up to 2 GB system memory. Refer to the following to install the memory module.

1. Push down the latches on both sides of the DIMM socket.
2. Align the memory module with the socket. There is a notch on the DIMM socket that you can install the DIMM module in the correct direction. Match the cutout on the DIMM module with the notch on the DIMM socket.
3. Install the DIMM module into the socket and press it firmly down until it is seated correctly. The socket latches are levered upwards and latch on to the edges of the DIMM.
4. Install any remaining DIMM modules.

Jumper Settings

Connecting two pins with a jumper cap is SHORT; removing a jumper cap from these pins, OPEN.

CLR_CMOS1: Clear CMOS Jumper

Use this jumper to clear the contents of the CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect and prevent your motherboard from operating. To clear the CMOS memory, disconnect all the power cables from the motherboard and then move the jumper cap into the CLEAR setting for a few seconds.

Function	Jumper
Normal	Short Pins 1-2
Clear CMOS	Short Pins 2-3

Note: To avoid the system unstability after clearing CMOS, we recommend users to enter the main BIOS setting page to **Load Optimal Defaults** and then **Save Changes and Exit**.

Install The Motherboard

Install the motherboard in a system chassis (case). The board is a Micro ATX size motherboard. You can install this motherboard in an ATX case. Make sure your case has an I/O cover plate matching the ports on this motherboard.

Install the motherboard in a case. Follow the case manufacturer's instructions to use the hardware and internal mounting points on the chassis.

Connect the power connector from the power supply to the **PWR1** connector on the motherboard. **PWR2** is a +12V connecotr for CPU Vcore power.

If there is a cooling fan installed in the system chassis, connect the cable from the cooling fan to the **SYS_FAN1** fan power connector on the motherboard.

Connect the case switches and indicator LEDs to the **PANEL1** header.

Pin	Signal	Pin	Signal
1	HD_LED_P(+)	2	FP PWR/SLP(+)
3	HD_LED_N(-)	4	FP PWR/SLP(-)
5	RESET_SW_N(-)	6	POWER_SW_P(+)
7	RESET_SW_P(+)	8	POWER_SW_N(-)
9	RSVD_DNU	10	KEY

Connecting Optional Devices

Refer to the following for information on connecting the motherboard optional devices:

SPK1: Speaker Header

Connect the cable from the PC speaker to the SPK1 header on the motherboard.

Pin	Signal
1	+5V
2	NC
3	GND
4	SPKR

F_AUDIO1: Front Panel Audio Header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal	Pin	Signal
1	AUD_MIC	2	AUD_GND
3	AUD_MIC_BIAS	4	AUD_VCC
5	AUD_FPOUT_R	6	AUD_RET_R
7	HP_ON	8	KEY
9	AUD_FPOUT_L	10	AUD_RET_L

F_USB1~2: Front Panel USB Headers

The motherboard has USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you have this kind of case, use auxiliary USB headers F_USB1~2 to connect the front-mounted ports to the motherboard.
Here is a list of USB pin assignments.

Pin	Signal	Pin	Signal
1	VERG_FP_USBPWR0	2	VERG_FP_USBPWR0
3	USB_FP_P0(-)	4	USB_FP_P1(-)
5	USB_FP_P0(+)	6	USB_FP_P1(+)
7	GROUND	8	GROUND
9	KEY	10	GROUND

1. Locate the F_USB1~2 headers on the motherboard.
2. Plug the bracket cable onto the F_USB1~2 headers.
3. Remove a slot cover from one of the expansion slots on the system chassis. Install an extension bracket in the opening. Secure the extension bracket to the chassis with a screw.

IR1: Infrared Port Header

The infrared port allows the wireless exchange of information between your computer and similarly equipped devices such as printers, laptops, Personal Digital Assistants (PDAs), and other computers.

Pin	Signal	Pin	Signal
1	NC	2	KEY
3	+5V	4	GND
5	IRTX	6	IRRX

1. Locate the infrared port-**IR1** header on the motherboard.
2. If you are adding an infrared port, connect the ribbon cable from the port to the IR1 header and then secure the port to an appropriate place in your system chassis.

Install Other Devices

Install and connect any other devices in the system following the steps below.

Floppy Disk Drive (Optional)

The motherboard ships with a floppy disk drive cable that can support one or two drives. Drives can be 3.5" or 5.25" wide, with capacities of 360K, 720K, 1.2MB, 1.44MB, or 2.88MB.

Install your drives and connect power from the system power supply. Use the cable provided to connect the drives to the floppy disk drive connector **FDD1**.

IDE Devices

IDE devices include hard disk drives, high-density diskette drives, and CD-ROM or DVD-ROM drives, among others.

The mainboard ships with an IDE cable that can support one or two IDE devices. If you connect two devices to a single cable, you must configure one of the drives as Master and one of the drives as Slave. The documentation of the IDE device will tell you how to configure the device as a Master or Slave device. The Master device connects to the end of the cable.

Install the device(s) and connect power from the system power

supply. Use the cable provided to connect the device(s) to the Primary IDE channel connector **IDE1** on the motherboard.

If you want to install more IDE devices, you can purchase a second IDE cable and connect one or two devices to the Secondary IDE channel connector **IDE2** on the motherboard. If you have two devices on the cable, one must be Master and one must be Slave.

Serial ATA Devices (Optional)

The **Serial ATA (Advanced Technology Attachment)** is the standard interface for the IDE hard drives, which is designed to overcome the design limitations while enabling the storage interface to scale with the growing media rate demands of PC platforms. It provides you a faster transfer rate of **1.5 Gb/s**. If you have installed a Serial ATA hard drive, you can connect the Serial ATA cables to the Serial ATA hard drive or the connector on the motherboard.

On the motherboard, locate the Serial ATA connectors **SATA1-2**, which support new Serial ATA devices for the highest data transfer rates, simpler disk drive cabling and easier PC assembly.

It eliminates limitations of the current Parallel ATA interface, but maintains register compatibility and software compatibility with Parallel ATA.

Analog Audio Input Header

If you have installed a CD-ROM drive or DVD-ROM drive, you can connect the drive audio cable to the onboard sound system.

When you first start up your system, the BIOS should automatically detect your CD-ROM/DVD drive. If it doesn't, enter the Setup Utility and configure the CD-ROM/DVD drive that you have installed. On the motherboard, locate the 4-pin header **CD_IN1**.

Here is a list of CD_IN1 pin assignments.

Pin	Signal
1	CD IN L
2	GND
3	GND
4	CD IN R

Expansion Slots

This motherboard has one CNR and two 32-bit PCI slots.

Follow the steps below to install an CNR/PCI expansion card.

1. Locate the CNR or PCI slots on the mainboard.
2. Remove the blanking plate of the slot from the system chassis.
3. Install the edge connector of the expansion card into the slot. Ensure the edge connector is correctly seated in the slot.
4. Secure the metal bracket of the card to the system chassis with a screw.

CNR Slot (Optional)

You can install the CNR (Communications and Networking Riser) cards in this slot, including LAN, Modem, and Audio functions.

PCI Slots

You can install the 32-bit PCI interface expansion cards in the slots.

Chapter 3 BIOS Setup Utility

Introduction

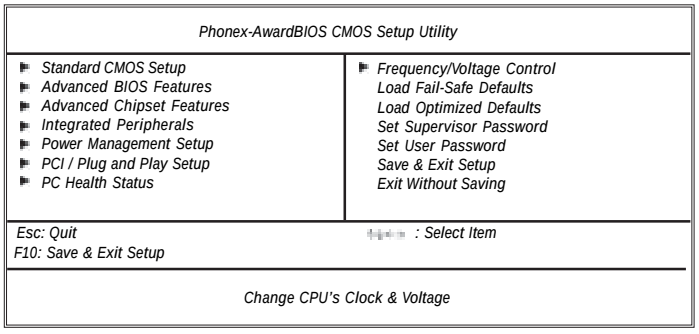
The BIOS Setup Utility records settings and information of your computer, such as date and time, the type of hardware installed, and various configuration settings. Your computer applies the information to initialize all the components when booting up and basic functions of coordination between system components.

If the Setup Utility configuration is incorrect, it may cause the system to malfunction. It can even stop your computer booting properly. If it happens, you can use the clear CMOS jumper to clear the CMOS memory which has stored the configuration information; or you can hold down the **Page Up** key while rebooting your computer. Holding down the **Page Up** key also clears the setup information.

You can run the setup utility and manually change the configuration. You might need to do this to configure some hardware installed in or connected to the motherboard, such as the CPU, system memory, disk drives, etc.

Running the Setup Utility

Every time you start your computer, a message appears on the screen before the operating system loading that prompts you to "*Hit <DEL>if you want to run SETUP*". Whenever you see this message, press the **Delete** key, and the Main menu page of the Setup Utility appears on your monitor.



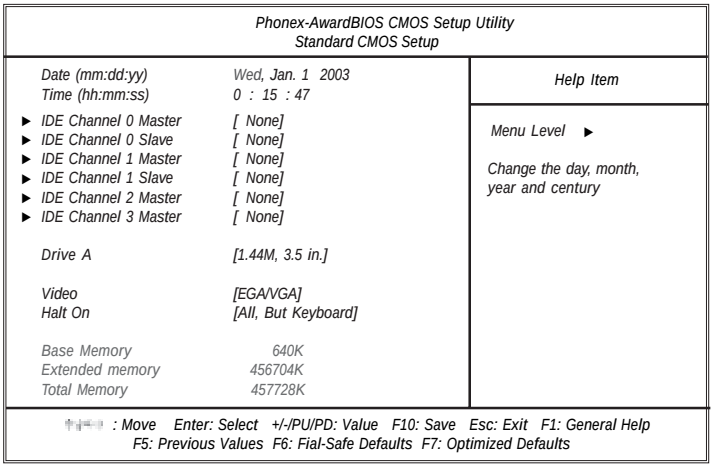
You can use cursor arrow keys to highlight anyone of options on the main menu page. Press **Enter** to select the highlighted option. Press the **Escape** key to leave the setup utility. Press +/-/ to modify the selected field's values.

Some options on the main menu page lead to tables of items with installed values that you can use cursor arrow keys to highlight one item, and press **PgUp** and **PgDn** keys to cycle through alternative values of that item. The other options on the main menu page lead to dialog boxes requiring your answer OK or Cancel by selecting the **[OK]** or **[Cancel]** key.

If you have already changed the setup utility, press **F10** to save those changes and exit the utility. Press **F1** to display a screen describing all key functions. Press **F9** to install the setup utility with a set of default values.

Standard CMOS Setup Page

This page displays a table of items defining basic information about your system.


Phonex-AwardBIOS CMOS Setup Utility
Standard CMOS Setup
Date (mm:dd:yy) Wed, Jan. 1 2003
Time (hh:mm:ss) 0 : 15 : 47
IDE Channel 0 Master [None]
IDE Channel 0 Slave [None]
IDE Channel 1 Master [None]
IDE Channel 1 Slave [None]
IDE Channel 2 Master [None]
IDE Channel 3 Master [None]
Drive A [1.44M, 3.5 in.]
Video [EGA/VGA]
Halt On [All, But Keyboard]
Base Memory 640K
Extended memory 456704K
Total Memory 457728K
Help Item
Menu Level ▶
Change the day, month, year and century
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

System Date & System Time

These items set up system date and time.

IDE Channel 0/1/2/3 Master & IDE Channel 0/1 Salve

Use these items to configure devices connected to the Primary/Secondary IDE channels. To configure an IDE hard disk drive, choose *Auto*. If the *Auto* setting fails to find a hard disk drive, set it to *User*, and then fill in the hard disk characteristics (Size, Cyls, etc.) manually. If you have a CD-ROM drive, select the setting *CDROM*. If you have an ATAPI device with removable media (e.g. a ZIP drive or an LS-120), select *Floptical*.

Drive A

These items define the characteristics of any diskette drive attached to the system. You can connect one or two diskette drives.

Video

The item defines the video mode of the system. This motherboard has a built-in VGA graphics system; you must leave this item at the default value.

Halt On

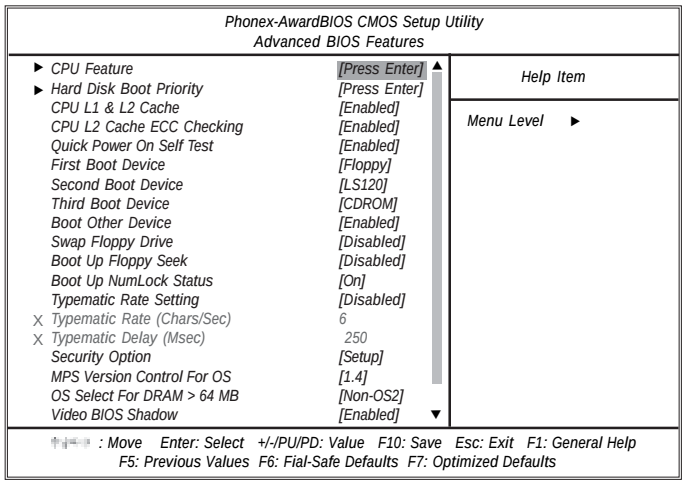
This item defines the operation of the system POST (Power On Self Test) routine. You can use this item to select which types of errors in the POST are sufficient to halt the system.

Base Memory, Extended Memory, and Total Memory

These items are automatically detected by the system at start up time. These are display-only fields. You cannot make changes to these fields.

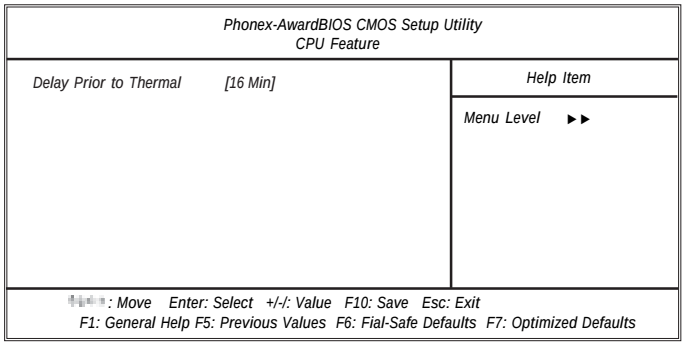
Advanced BIOS Features Page

This page sets up more advanced information about your system. Handle this page with caution. Any changes can affect the operation of your computer.


Phonex-AwardBIOS CMOS Setup Utility
Advanced BIOS Features
▶ CPU Feature [Press Enter]
▶ Hard Disk Boot Priority [Press Enter]
CPU L1 & L2 Cache [Enabled]
CPU L2 Cache ECC Checking [Enabled]
Quick Power On Self Test [Enabled]
First Boot Device [Floppy]
Second Boot Device [LS120]
Third Boot Device [CDROM]
Boot Other Device [Enabled]
Swap Floppy Drive [Disabled]
Boot Up Floppy Seek [Disabled]
Boot Up NumLock Status [On]
Typematic Rate Setting [Disabled]
X Typematic Rate (Chars/Sec) 6
X Typematic Delay (Msec) 250
Security Option [Setup]
MPS Version Control For OS [1.4]
OS Select For DRAM > 64 MB [Non-OS2]
Video BIOS Shadow [Enabled]
Help Item
Menu Level ▶
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

▶ CPU Feature (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

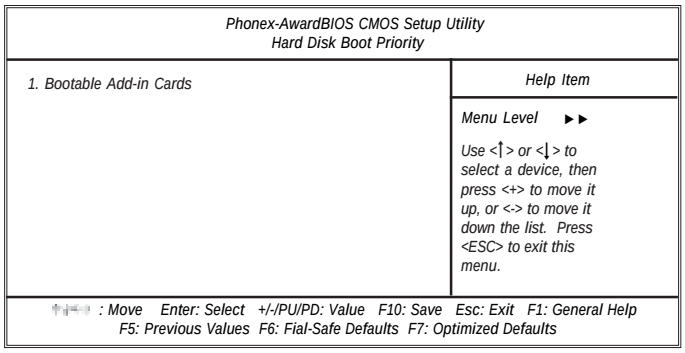

Phonex-AwardBIOS CMOS Setup Utility
CPU Feature
Delay Prior to Thermal [16 Min]
Help Item
Menu Level ▶▶
: Move Enter: Select +/-/: Value F10: Save Esc: Exit
F1: General Help F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

Delay Prior to Thermal (16 Min)

This item enables you to set the delay time before the CPU enters auto thermal mode.

▶ Hard Disk Boot Priority (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
Hard Disk Boot Priority
1. Bootable Add-in Cards
Help Item
Menu Level ▶▶
Use <↑> or <↓> to select a device, then press <+> to move it up, or <-> to move it down the list. Press <ESC> to exit this menu.
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

CPU L1 & L2 Cache

All processors that can be installed in this motherboard use internal level 1 (L1) and external level 2 (L2) cache memory to improve performance. Leave this item at the default value for better performance.

CPU L2 Cache ECC Checking

Enable this item to allow CPU L2 Cache ECC (Error Correcting Code) checking.

Quick Power On Self Test

Enable this item to shorten the power on testing (POST) and have your system start up faster. You might like to enable this item after you are confident that your system hardware is operating smoothly.

First/Second/Third Boot Device

Use these three items to select the priority and order of the devices that your system searches for an operating system at start-up time.

Boot Other Device

When enabled, the system searches all other possible locations for an operating system if it fails to find one in the devices specified under the First, Second, and Third boot devices.

Swap Floppy Drive

If you have two floppy diskette drives in your system, this item allows you to swap the assigned drive letters so that drive A becomes drive B, and drive B becomes drive A.

Boot Up Floppy Seek

If this item is enabled, it checks the size of the floppy disk drives at start-up time. You do not need to enable this item unless you have a legacy diskette drive with 360K capacity.

Boot Up NumLock Status

This item defines if the keyboard Num Lock key is active when your system is started.

Typematic Rate Setting (Disabled)

If this item is enabled, you can use the following two items to set the typematic rate and the typematic delay settings for your keyboard.

- ***Typematic Rate (Chars/Sec)***: Use this item to define how many characters per second are generated by a held-down key.
- ***Typematic Delay (Msec)***: Use this item to define how many milliseconds must elapse before a held-down key begins generating repeat characters.

Security Option

If you have installed password protection, this item defines if the password is required at system start up, or if it is only required when a user tries to enter the Setup Utility.

MPS Version Control For OS

This item specifies which version of MPS (Multi-Processor Specification) this motherboard will use. Leave this item to its default setting.

OS Select For DRAM > 64 MB

This item is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this item at the default.

Video BIOS Shadow

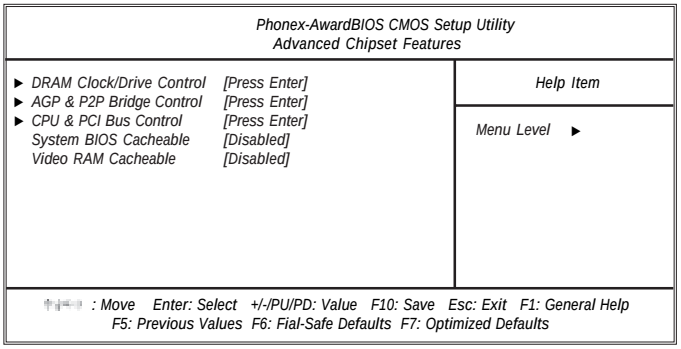
Enable this item to shadow basic BIOS function in ROM in order to invoke these functions whenever needs.

Small Logo (EPA) Show

Enables or disables the display of the EPA logo during boot.

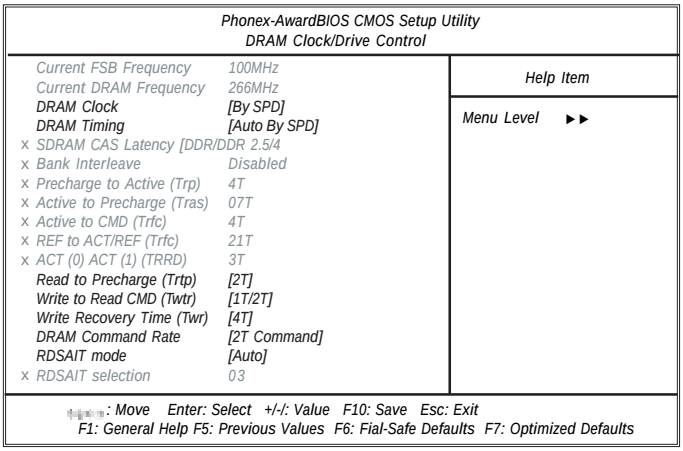
Advanced Chipset Features Page

These items define critical timing parameters of the motherboard. You should leave the items on this page at their default values unless you are very familiar with the technical specifications of your system hardware. If you change the values incorrectly, you may introduce fatal errors or recurring instability into your system.


Phonex-AwardBIOS CMOS Setup Utility
Advanced Chipset Features
► DRAM Clock/Drive Control [Press Enter]
► AGP & P2P Bridge Control [Press Enter]
► CPU & PCI Bus Control [Press Enter]
System BIOS Cacheable [Disabled]
Video RAM Cacheable [Disabled]
Help Item
Menu Level ►
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

▸DRAM Clock/Drive Control (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
DRAM Clock/Drive Control
Current FSB Frequency 100MHz
Current DRAM Frequency 266MHz
DRAM Clock [By SPD]
DRAM Timing [Auto By SPD]
x SDRAM CAS Latency [DDR/DDR 2.5/4
x Bank Interleave Disabled
x Precharge to Active (Trp) 4T
x Active to Precharge (Tras) 07T
x Active to CMD (Trfc) 4T
x REF to ACT/REF (Trfc) 21T
x ACT (0) ACT (1) (TRRD) 3T
Read to Precharge (Trtp) [2T]
Write to Read CMD (Twtr) [1T/2T]
Write Recovery Time (Twr) [4T]
DRAM Command Rate [2T Command]
RDSAIT mode [Auto]
x RDSAIT selection 03
Help Item
Menu Level ▸▸
: Move Enter: Select +/-/: Value F10: Save Esc: Exit
F1: General Help F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

Current FSB/DRAM Frequency

This item displays current FSB/DRAM frequency.

DRAM Clock

This item sets the DRAM clock module.

DRAM Timing

This item selects the DRAM timing mode.

- ***SDRAM CAS latency*** This item determines the operation of DDR SDRAM memory CAS (column address strobe). It is recommended that you leave this item at the default value. The 2.5T setting requires faster memory that secifically supports this mode.
- ***Bank Interleave***: Depending on your SDRAM module structure, the 4-Way setting can offer the best performance. If you choose the wrong setting, the computer system will not run in a stable number.
- ***Precharge to Active (Trp)***: This item specifies the the amount of time from a bank precharge request to when it can be activated. It is usually recommended you use the lowest Trp which your RAM and motherboard can run stable with.
- ***Active to Precharge (Tras)***: This item specifies the the amount of time required between an active command to a precharge command.
- ***REF to ACT/REF (Trfc)***: This item means AutoRefresh period.
- ***ACT (0) to ACT(1) (TRRD)***: This item means ACT (0) to ACT(1) delay.

Read to Precharge (Trtp)

This item defines the precharge operation always starts one clock following the Read command, independent of CAS Latancy.

Write to Read CMD

This item species CMD between a valid write command and the next read command.

Write Recovery Time

Use this item to specify the time measured from the last write datum is safely registered by the DRAM.

DRAM Command Rate

When the host (northbridge locates the desired memory address, it then processors the wait state of commands.

RDSAIT mode

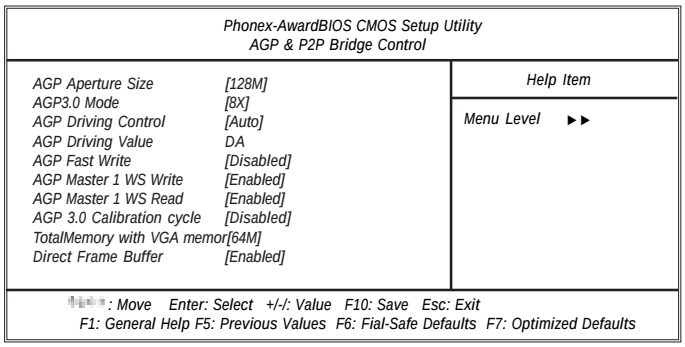
This item enable or disable the RDSAIT mode.

RDSAIT selection

This item enable or disable to select the RDSAIT mode.

▸AGP & P2P Bridge Control (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
AGP & P2P Bridge Control
AGP Aperture Size [128M]
AGP3.0 Mode [8X]
AGP Driving Control [Auto]
AGP Driving Value DA
AGP Fast Write [Disabled]
AGP Master 1 WS Write [Enabled]
AGP Master 1 WS Read [Enabled]
AGP 3.0 Calibration cycle [Disabled]
TotalMemory with VGA memor[64M]
Direct Frame Buffer [Enabled]
Help Item
Menu Level ▸▸
: Move Enter: Select +/-/: Value F10: Save Esc: Exit
F1: General Help F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

AGP Aperture Size

This item defines the size of the aperture if you use an AGP graphics adapter. The AGP aperture refers to a section of the PCI memory addres range used for graphics memory. We recommend that you leave this item at default value.

AGP 3.0 Mode

This item defines the AGP 3.0 mode.

AGP Driving Control

Use this item to set AGP driving work mode.

AGP Driving Value

Use this item to control AGP driving computation way. Only when AGP Driving Control is enabled.

AGP Fast Write

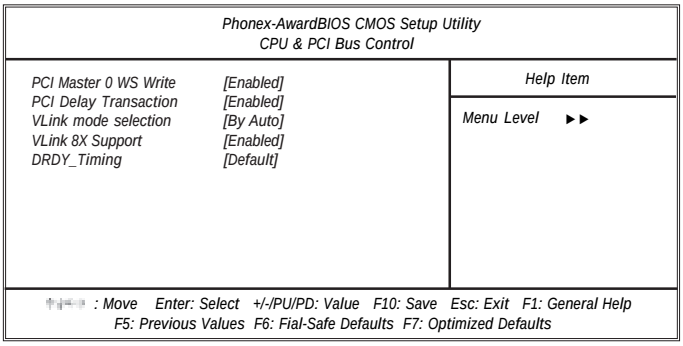
Use this item to enable or disable AGP Fast Write function. Enable this item to improve AGP efficiency.

AGP Master 1 WS Write/Read

Disable this item to make AGP Master delay the operation of data write/read.

▸CPU & PCI Bus Control (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
CPU & PCI Bus Control
PCI Master 0 WS Write [Enabled]
PCI Delay Transaction [Enabled]
VLink mode selection [By Auto]
VLink 8X Support [Enabled]
DRDY_Timing [Default]
Help Item
Menu Level ▸▸
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

PCI Master 0 WS Write

This item determines whether the chipsets inserts a delay before any writes from the PCI slots. If it is enabled, write requests to the PCI bus are executed immediately (with zero wait states), if the PCI bus is ready to send data.

PCI Delay Transaction

This item is used to meet the latency of PCI cycles to and from the ISA bus.

VLink mode selection

This item controls the data transfer speed between the north and south bridge.

VLink 8X Support

Use this item to enable or disable VLink 8X support.

DRDY_Timing

This item specifies the timing of data ready.

System BIOS Cacheable

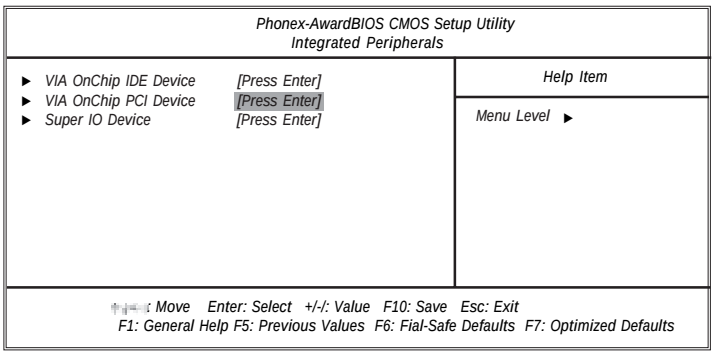
Enable this item to get faster system BIOS executing speed via the L2 cache.

Video RAM Cacheable

Disable or enable this item to read cache data from RAM.

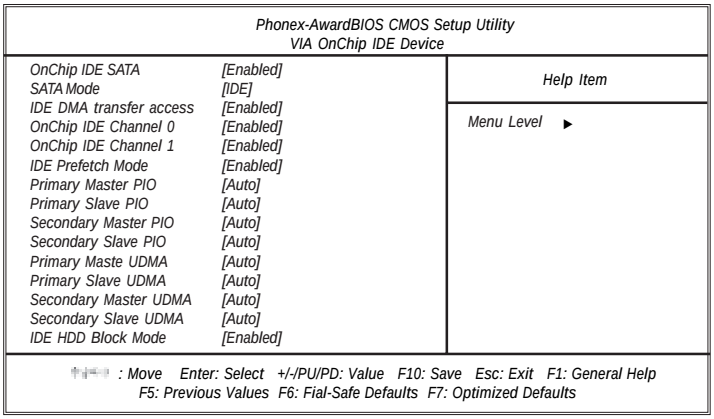
Integrated Peripherals Page

These options display items that define the operation of peripheral components on the system's input/output ports.


Phonex-AwardBIOS CMOS Setup Utility
Integrated Peripherals
VIA OnChip IDE Device [Press Enter]
VIA OnChip PCI Device [Press Enter]
Super IO Device [Press Enter]
Help Item
Menu Level ▶
: Move Enter: Select +/-/: Value F10: Save Esc: Exit
F1: General Help F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

▶ VIA OnChip IDE Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
VIA OnChip IDE Device
OnChip IDE SATA [Enabled]
SATA Mode [IDE]
IDE DMA transfer access [Enabled]
OnChip IDE Channel 0 [Enabled]
OnChip IDE Channel 1 [Enabled]
IDE Prefetch Mode [Enabled]
Primary Master PIO [Auto]
Primary Slave PIO [Auto]
Secondary Master PIO [Auto]
Secondary Slave PIO [Auto]
Primary Maste UDMA [Auto]
Primary Slave UDMA [Auto]
Secondary Master UDMA [Auto]
Secondary Slave UDMA [Auto]
IDE HDD Block Mode [Enabled]
Help Item
Menu Level ▶
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

OnChip SATA

Use these items to enable or disable the PCI IDE channels that are integrated on the motherboard.

SATA Mode

This item defines the onboard SATA mode.

IDE DMA transfer access

This item allows you to enable the transfer access of the IDE DMA then burst onto the PCI bus and nonburstable transactions do not.

OnChip IDE Channel 0/1

This item allow you to enable or disable the onboard IDE channels.

IDE Prefetch Mode

The onboard IDE drive interface supports IDE prefetching, for faster drive access. If you install a primary and secondary add-in IDE interface, set this field to Disabled if the interface does not support prefetching.

Primary/Secondary Master/Slave PIO

Each IDE channel supports a master device and a slave device. These four items let you assign the kind of PIO (Programmed Input/Output) was used by the IDE devices. Choose Auto to let the system auto detect which PIO mode is best, or select a PIO mode from 0-4.

Primary/Secondary Master/Slave UDMA

Each IDE channel supports a master device and a slave device. This motherboard supports UltraDMA technology, which provides faster access to IDE devices.

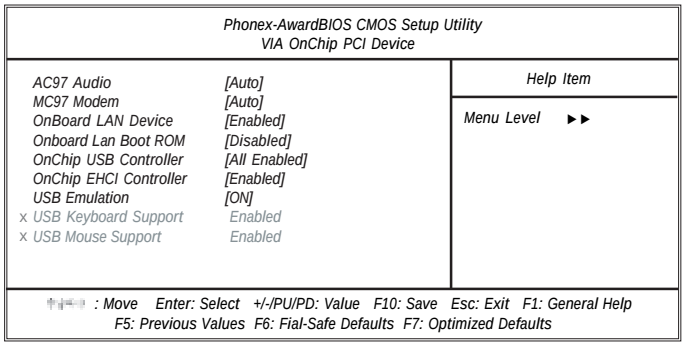
If you install a device that supports UltraDMA, change the appropriate item on this list to Auto. You may have to install the UltraDMA driver supplied with this motherboard in order to use an UltraDMA device.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode, select Enabled for automatic detection of the optimal number of block read/write per sector the drive can support.

▸VIA OnChip PCI Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
VIA OnChip PCI Device
AC97 Audio [Auto]
MC97 Modem [Auto]
OnBoard LAN Device [Enabled]
Onboard Lan Boot ROM [Disabled]
OnChip USB Controller [All Enabled]
OnChip EHCI Controller [Enabled]
USB Emulation [ON]
x USB Keyboard Support Enabled
x USB Mouse Support Enabled
Help Item
Menu Level ▸▸
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

AC97 Audio

Enables and disables the onboard audio chip. Disable this item if you are going to install a PCI audio add-in card.

MC97 Modem

Enable and disable the onboard MC97 modem.

Onboard LAN Device

Enable or disable the Onboard Lan function.

Onboard Lan Boot ROM

Enable and disable the booting from the onboard LAN or a network add-in card with a remote boot ROM installed.

Onchip USB Controller

This item enables users to enable or disable the onchip USB function, setting it to be USB1.1 or USB2.0 compatible.

OnChip EHCI Controller

Enable or disable the Onboard EHCI controller.

USB Emulation

This item enables and disables the USB emulation.

USB Keyboard Support

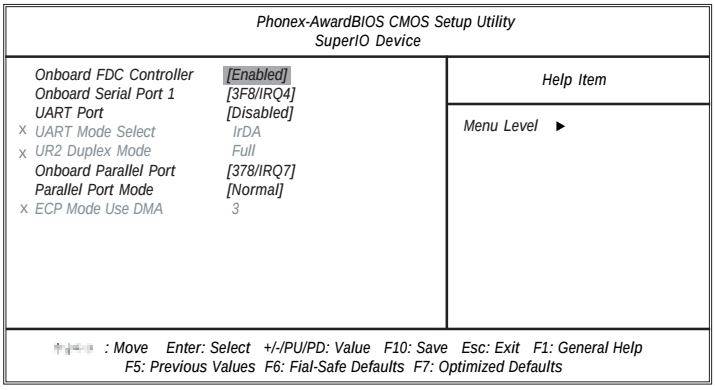
Enables this item if you plan to use a keyboard connected through the USB port in a legacy operating system (such as DOS) that does not support Plug and Play.

USB Mouse Support

Enable this item if you plan to use a mouse connected through the USB port in a legacy operating system (such as DOS) that does not support Plug and Play.

▶ SuperIO Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
SuperIO Device
Onboard FDC Controller [Enabled]
Onboard Serial Port 1 [3F8/IRQ4]
UART Port [Disabled]
x UART Mode Select IrDA
x UR2 Duplex Mode Full
Onboard Parallel Port [378/IRQ7]
Parallel Port Mode [Normal]
x ECP Mode Use DMA 3
Help Item
Menu Level ▶
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

Onboard FDC Controller (Enabled)

This option enables the onboard floppy disk drive controller.

Onboard Serial Port 1 (3F8/IRQ4)

This option is used to assign the I/O address and interrupt request (IRQ) for onboard serial port 1/2.

UART Port

This item allows users to enable or disable the UART 2 Mode Controller.

- ***UART Mode Select (IrDA)***: This field enables you to select the infrared communication protocol-Normal (default), IrDA, or ASKIR.
- ***UR2 Duplex Mode (Full)***: This field is available when UART Mode is set to either ASKIR or IrDA. This item enables you to determine the infrared function of the onboard infrared chip. The options are Full and Half (default). Full-duplex means that you can transmit and send information simultaneously. Half-duplex is the transmission of data in both directions, but only one direction at a time.

Onboard Parallel Port

This option is used to assign the I/O address and interrupt request (IRQ) for the onboard parallel port.

Parallel Port Mode

Enables you to set the data transfer protocol for your parallel port. There are four options: SPP (Standard Parallel Port), EPP (Enhanced Parallel Port), ECP (Extended Capabilities Port) and ECP+EPP.

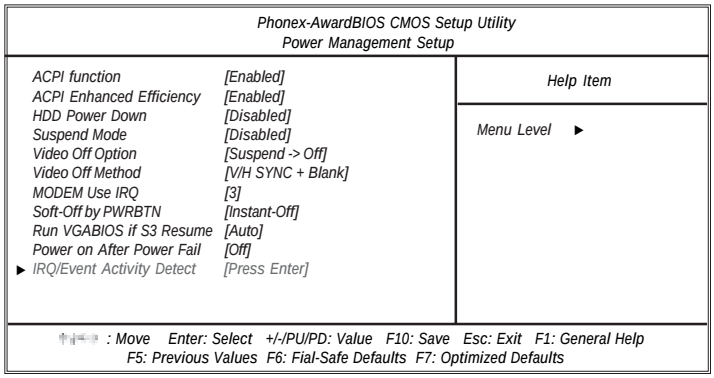
SPP allows data output only. Extended Capabilities Port (ECP) and Enhanced Parallel Port (EPP) are bi-directional modes, allowing both data input and output. ECP and EPP modes are only supported with EPP- and ECP-aware peripherals.

ECP Mode Use DMA

When the onboard parallel port is set to ECP mode, the parallel port can use DMA 3 or DMA 1.

Power Management Setup Page

This option lets you control system power management. The system has various power-saving modes including powering down the hard disk, turning off the video, suspending to RAM, and software power down that allows the system to be automatically resumed by certain events.


Phonex-AwardBIOS CMOS Setup Utility
Power Management Setup
ACPI function [Enabled]
ACPI Enhanced Efficiency [Enabled]
HDD Power Down [Disabled]
Suspend Mode [Disabled]
Video Off Option [Suspend -> Off]
Video Off Method [V/H SYNC + Blank]
MODEM Use IRQ [3]
Soft-Off by PWRBTN [Instant-Off]
Run VGABIOS if S3 Resume [Auto]
Power on After Power Fail [Off]
IRQ/Event Activity Detect [Press Enter]
Help Item
Menu Level ►
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

ACPI function

Use this item toenable ACPI (Advanced Configuration and Power Management Interface) function.

ACPI Enhanced Efficiency

This item allows you to enable or disable ACPI Enhanced Efficiency function.

HDD Power Down

The IDE hard drive will spin down if it is not accessed within a specified length of time.

Suspend Mode

The CPU clock will be stopped and the video signal will be suspended if no Power Management events occur for a specified length of time. Full power function will return when a Power Management events is detected.

Video Off Option

This item defines if the video is powered down when the system is put into suspend mode.

Video Off Method

This item defines how the video is powered down to save power. This item is set to DPMS (Display Power Management Software) by default.

MODEM Use IRQ

If you want an incoming call on a modem to automatically resume the system from a power saving mode, use this item to specify the interrupt request line (IRQ) that is used by the modem. You might have to connect the fax/modem to the motherboard Wake On Modem.

Soft-Off by PWRBTN

Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, the system can be resumed by Wake Up Alarms. This item lets you install a software power down that is controlled by the power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to Delay 4 Sec. then you have to hold the power button down for four seconds to cause a software power down.

Run VGABIOS if S3 Resume

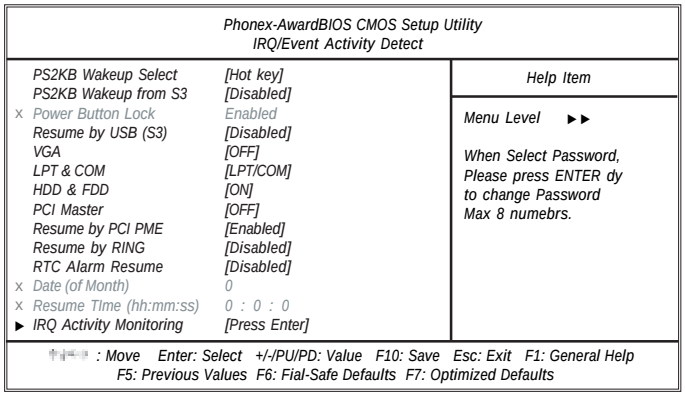
Use this item to initialize the VGA BIOS from S3 (suspend to RAM) sleep state.

Power on After Power Fail

This item enables your computer to automatically restart or return to its last operating status.

▸IRQ/Event Activity Detect (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
IRQ/Event Activity Detect
PS2KB Wakeup Select [Hot key]
PS2KB Wakeup from S3 [Disabled]
x Power Button Lock Enabled
Resume by USB (S3) [Disabled]
VGA [OFF]
LPT & COM [LPT/COM]
HDD & FDD [ON]
PCI Master [OFF]
Resume by PCI PME [Enabled]
Resume by RING [Disabled]
RTC Alarm Resume [Disabled]
x Date (of Month) 0
x Resume TIme (hh:mm:ss) 0 : 0 : 0
▸ IRQ Activity Monitoring [Press Enter]
Help Item
Menu Level ▸▸
When Select Password,
Please press ENTER dy
to change Password
Max 8 numebrs.
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

PS2KB Wakeup Select

This item defines the mode with which the activity of the keyboard device can wake up the system.

PS2KB Wakeup from S3

This option allows the activity of the keyboard device to wake up the system from S3 mode.

Power Button Lock

This item lets you install a software power down controlled by the normal power buttonon your system.

PS2MS Wakeup from S3

This option allows the activity of the mouse device to wake up the system from S3 mode.

Resume by USB (S3)

This item allows the activity of the USB devices to wake up the system from S3 sleep state.

VGA

Use this item to enable power management unit to monitor VGA activities.

LPT & COM

Use this item to enable power management unit to monitor LPT or COM activities.

HDD & FDD

Use this item to enable power management unit to monitor HDD or FDD activities.

PCI Master

This item enable or disable that the system will be waken up by PCI master command.

Resume by PCI PME

This item specifies whether the system will be awakened from power saving modes when activity or input signal of the specified hardware peripheral or component is detected.

Resume by RING

An input signal on the serial Ring indicator (RI) line (in other words, and incoming call on the modem) awakens the system from a soft off state.

RTC Alarm Resume

The system can be turned off with a software command. If you enable this item,the system can automatically resume at a fixed time based on the system RTC (realtime clock). Use the items below this one to set the date and time of thewake-up alarm. You must use an ATX power supply in order to use this feature.

Date (of Month)

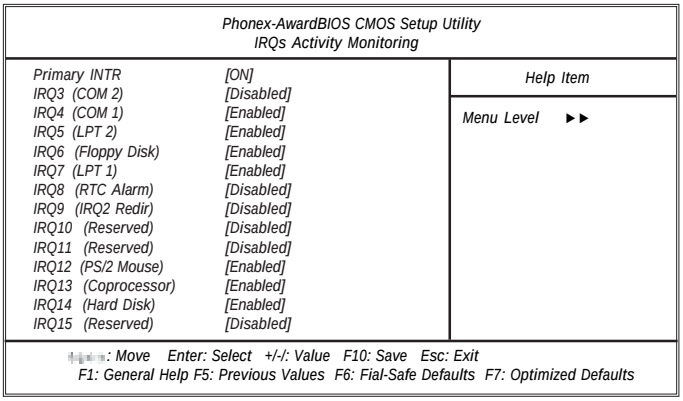
This item specifies the date for "RTC Alarm Resume".

Resume Time

This item specifies the date for "RTC Alarm Resume".

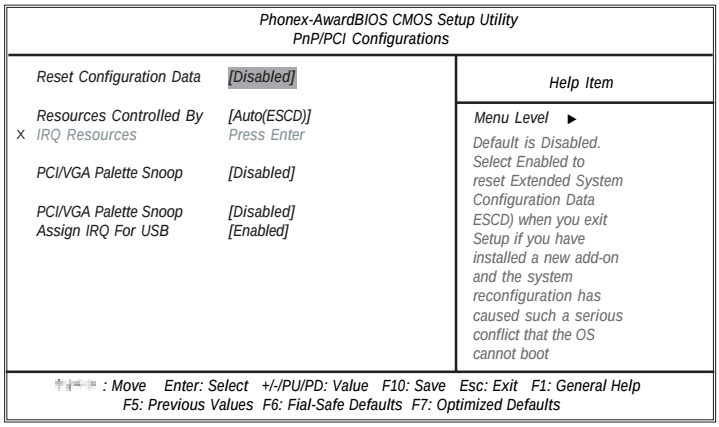
▸IRQs Activity Monitoring (Press Enter)

Scroll to this item and press <Enter> to view the following screen:


Phonex-AwardBIOS CMOS Setup Utility
IRQs Activity Monitoring
Primary INTR [ON]
IRQ3 (COM 2) [Disabled]
IRQ4 (COM 1) [Enabled]
IRQ5 (LPT 2) [Enabled]
IRQ6 (Floppy Disk) [Enabled]
IRQ7 (LPT 1) [Enabled]
IRQ8 (RTC Alarm) [Disabled]
IRQ9 (IRQ2 Redir) [Disabled]
IRQ10 (Reserved) [Disabled]
IRQ11 (Reserved) [Disabled]
IRQ12 (PS/2 Mouse) [Enabled]
IRQ13 (Coprocessor) [Enabled]
IRQ14 (Hard Disk) [Enabled]
IRQ15 (Reserved) [Disabled]
Help Item
Menu Level ▸▸
: Move Enter: Select +/-/: Value F10: Save Esc: Exit
F1: General Help F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

PnP/PCI Configurations Page

These options configure how PnP (Plug and Play) and PCI expansion cards operate in your system. Both the the ISA and PCI buses on the motherboard use system IRQs (Interrup ReQuests) and DMAs (Direct Memory Access). You must set up the IRQ and DMA assignments correctly through the PnP/PCI Configurations Setup utility for the motherboard to work properly. Selecting PnP/PCI Configurations on the main program screen displays this menu:


Phonex-AwardBIOS CMOS Setup Utility
PnP/PCI Configurations
Reset Configuration Data [Disabled]
Resources Controlled By [Auto(ESCD)]
X IRQ Resources Press Enter
PCI/VGA Palette Snoop [Disabled]
PCI/VGA Palette Snoop [Disabled]
Assign IRQ For USB [Enabled]
Help Item
Menu Level ▶
Default is Disabled. Select Enabled to reset Extended System Configuration Data ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

Reset Configuration Data

If you enable this item and restart the system, any Plug and Play configuration data stored in the BIOS Setup is cleared from memory.

Resources Controlled By

You should leave this item at the default Auto (ESCD). Under this setting, the system dynamically allocates resources to Plug and Play devices as they are required. If you cannot get a legacy ISA (Industry Standard Architecture) expansion card to work properly, you might be able to solve the problem by changing this item to Manual, and then opening up the IRQ Resources submenu.

- **IRQ Resources [Press Enter]:** In the IRQ Resources submenu, if you assign an IRQ to Legacy ISA, then that Interrupt Request Line is reserved for a legacy ISA expansion card. Press <Esc> to close the IRQ Resources submenu.

PCI/VGA Palette Snoop

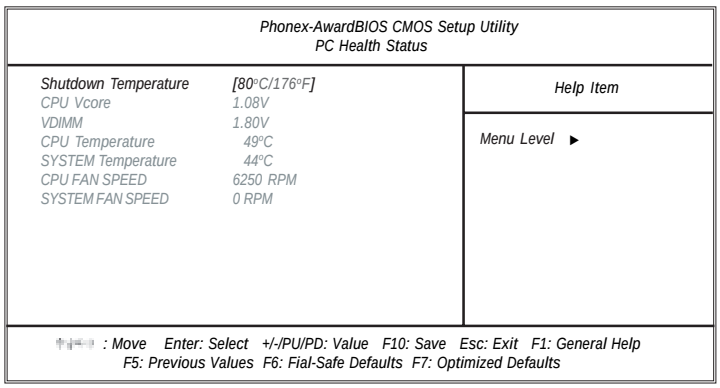
This item is designed to overcome problems that can be caused by some non-standard VGA cards. This board includes a built-in VGA system that does not require palette snooping so you must leave this item disabled.

Assign IRQ For USB

Names the interrup request (IRQ) line assigned to the USB on your system. Activity of the selected IRQ always awakens the system.

PC Health Status Page

On motherboards that support hardware monitoring, this item lets you monitor the parameters for critical voltages, temperatures and fan speeds.


Phonex-AwardBIOS CMOS Setup Utility
PC Health Status
Shutdown Temperature [80°C/176°F]
CPU Vcore 1.08V
VDIMM 1.80V
CPU Temperature 49°C
SYSTEM Temperature 44°C
CPU FAN SPEED 6250 RPM
SYSTEM FAN SPEED 0 RPM
Help Item
Menu Level ►
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

Shutdown Temperature (Disabled)

Enables you to set the maximum temperature the system can reach before powering down.

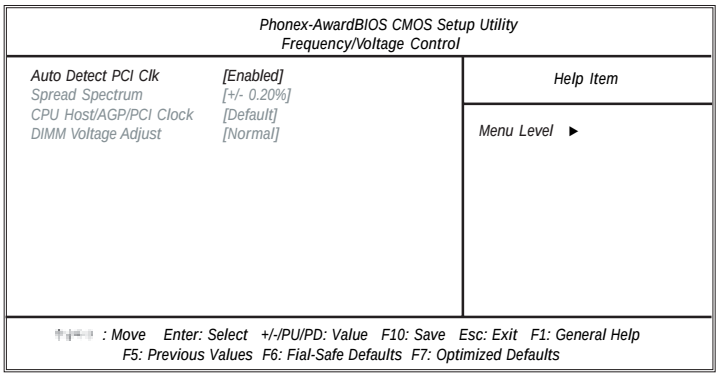
System Component Characteristics

These fields provide you with information about the systems current operating status. You cannot make changes to these fields.

- CPU Vcore
- VDIMM
- CPU Temperature
- SYSEM Temperature
- CPU FAN SPEED
- SYSTEM FAN SPEED

Frequency/Voltage Control

This item enables you to set the clock speed and system bus for your system. The clock speed and system bus are determined by the kind of processor you have installed in your system.


Phonex-AwardBIOS CMOS Setup Utility
Frequency/Voltage Control
Auto Detect PCI Clk [Enabled]
Spread Spectrum [+/- 0.20%]
CPU Host/AGP/PCI Clock [Default]
DIMM Voltage Adjust [Normal]
Help Item
Menu Level ►
: Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults

Auto Detect PCI Clk

When this item is enabled, BIOS will disable the clock signal of free DIMM and PCI slots.

Spread Spectrum

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by the system.

CPU Host/AGP/PCI Clock

This item allows you to select the CPU Host/AGP/PCI Clock frequency.

DIMM Voltage Adjust

Use this item to set the frontside bus frequency for the installed processor.

Load Fail-Safe Defaults

This option opens a dialog box that lets you install fail-safe defaults for all appropriateitems in the Setup Utility: Press <Y> and the <Enter> to install the defaults. Press<N> and then <Enter> to not install the defaults. The fail-safe defaults place no greatdemands on the system and are generally stable. If your system is not functioningcorrectly, try installing the fail-safe defaults as a first step in getting your system workingproperly again. If you only want to install fail-safe defaults for a specific option, selectand display that option, and then press <F6>.

Load Optimized Defaults

This option opens a dialog box that lets you install optimized defaults for all appropriate items in the Setup Utility. Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press <F7>.

Set Supervisor/User Password

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection.

To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter BIOS Setup freely.

PASSWORD DISABLED

If you have selected "System" in "Security Option" of "BIOS Features Setup" menu, you will be prompted for the password every time the system reboots or any time you try to enter BIOS Setup.

If you have selected "Setup" at "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password only when you enter BIOS Setup.

Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

Save & Exit Setup

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the main menu.

Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. When the Exit Without Saving dialog box appears, press <Y> to discard changes and exit, or press <N> to return to the main menu.

Note: If you have made settings that you do not want to save, use the “Exit Without Saving” item and press <Y> to discard any changes you have made.

Chapter 4 Software & Applications

Introduction

This chapter describes the contents of the support CD-ROM that comes with the motherboard package.

The support CD-ROM contains all useful software, necessary drivers and utility programs to properly run our products. More program information is available in a README file, located in the same directory as the software.

To run the support CD, simply insert the CD into your CD-ROM drive. An Auto Setup screen automatically pops out, and then you can go on the auto-installing or manual installation depending on your operating system.

If your operating system is Windows 98/ME/2000/XP, it will automatically install all the drivers and utilities for your motherboard.

Installing Support Software

1 Insert the support CD-ROM disc in the CD-ROM drive.
2 When you insert the CD-ROM disc in the system CD-ROM drive, the CD automatically displays an Auto Setup screen.
3 The screen displays three buttons of **Setup**, **Browse CD** and **Exit** on the right side, and three others **Setup**, **Application** and **ReadMe** at the bottom. Please see the following illustration.

The **Setup** button runs the software auto-installing program as explained in next section.

The **Browse CD** button is a standard Windows command that you can check the contents of the disc with the Windows 98 file browsing interface.

The **Exit** button closes the Auto Setup window. To run the program again, reinsert the CD-ROM disc in the drive; or click the CD-ROM driver from the Windows Explorer, and click the Setup icon.

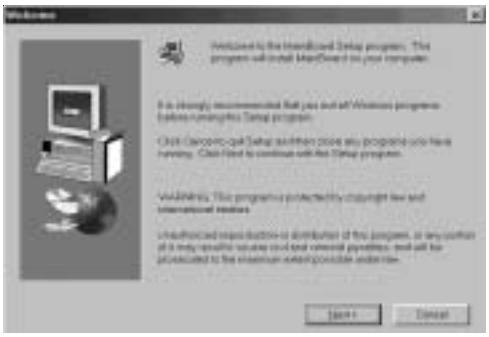
The **Application** button brings up a software menu. It shows the bundled software that this mainboard supports.

The **ReadMe** brings you to the Install Path where you can find out path names of software driver.

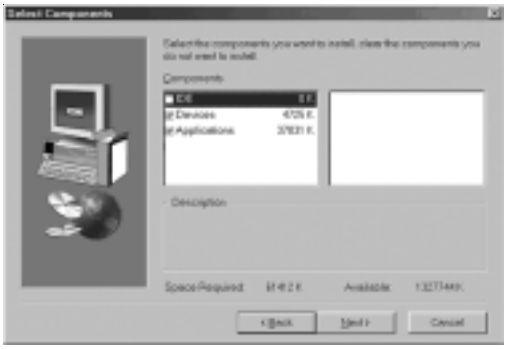
Auto-Installing under Windows 98/ME/2000/XP

If you are under Windows 2000/XP, please click the **Setup** button to run the software auto-installing program while the Auto Setup screen pops out after inserting the support CD-ROM:

1 The installation program loads and displays the following screen. Click the **Next** button.



2 Select the items that you want to setup by clicking on it (the default options are recommended). Click the **Next** button to proceed.



3 The support software will automatically install.

Once any of the installation procedures start, software is automatically installed in sequence. You need to follow the onscreen instructions, confirm commands and allow the computer to restart as few times as needed to complete installing whatever software you selected. When the process is finished, all the support software will be installed and start working.

Bundled Software Installation

All bundled software available on the CD-ROM is for users convenience. You can install bundled software as follows:

1. Click the **Application** button while the Auto Setup screen pops out after inserting the support CD-ROM.
2. A software menu appears. Click the software you want to install.
3. Follow onscreen instructions to install the software program step by step until finished.

AMI/AWARD Flash Utility

This utility lets you erase the system BIOS stored on a Flash Memory chip on the motherboard, and lets you copy an updated version of the BIOS to the chip. Proceed with caution when using this program. If you erase the current BIOS and fail to write a new BIOS, or write a new BIOS that is incorrect, your system will malfunction. Refer to Chapter 3, Using BIOS for more information.

WinFlash Utility

The WinFlash utility is a Windows version of the DOS BIOS flash writer utility. The utility enables you to flash the system BIOS stored on a Flash Memory chip on the motherboard while in a Windows environment. This utility is currently available for WINXP\2000. To install the WinFlash utility, run AFUWIN.EXE (AMI) or WINFLASH.EXE(Award) from the following directory: \UTILITY\AMIFLASH or AWDFLASH.